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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/742,363	12/22/2000	Tomoo Yamaguchi	Q62262	8173

7590 10/01/2003

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EXAMINER
AHMED, SHEEBA

ART UNIT	PAPER NUMBER
1773	10

DATE MAILED: 10/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/742,363	YAMAGUCHI ET AL.	
	Examiner	Art Unit	
	Sheeba Ahmed	1773	

-- The MAILING DATE of this c mmunication appears on the cover sheet with the corresp ndence address --

Peri d for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 July 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8 and 10-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8 and 10-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 18, 2003 and July 7, 2003 has been entered. **Claims 1-8 and 10-18 are now pending.**

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogawa (JP 11-80690) in view of Southwick et al. (US 5,776,998).

Ogawa discloses a pressure sensitive adhesive (PSA) composition and an adhesive sheet comprising the pressure sensitive adhesive composition wherein the PSA comprises 100 parts by weight of an elastomer such as natural rubber, 50-150 parts by weight of a tackifier and 0.1 to 10 parts by weight of a polyisocyanate compound such as 4,4'-diphenylmethane diisocyanate.

Ogawa et al. do not specifically state that the process of making their pressure sensitive adhesive does not use a solvent.

However, Southwick et al. teach processes for making adhesives by shearing a mixture of a photoinitiator and a polymer formulation so that an effectively cured adhesive film is produced with a thickness of up to an inch or more and further teach that the use of non-aqueous solvents is undesirable because of environmental hazards and the cost of non-aqueous solvent removal (Column 1, lines 39-49).

Accordingly, it would have been obvious to one having ordinary skill in the art to make the pressure sensitive adhesive composition taught by Ogawa et al. without the use of solvents given that Southwick et al. specifically teach that the use of non-aqueous solvents is undesirable because of environmental hazards and the cost of non-aqueous solvent removal. With regards to the limitation that the natural rubber has a Mooney viscosity of 20 to 100, i.e., claim 3, the Examiner takes the position that the rubber disclosed by Ogawa inherently meets such a limitation given that the chemical composition and structure of the rubber disclosed by Ogawa and that of the claimed invention are identical.

3. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sashihara et al. (US 6,251,517 B1) in view of Southwick et al. (US 5,776,998).

Sashihara et al. disclose a pressure sensitive adhesive (PSA) composition comprising 100 parts by weight of natural rubber, 50 parts by weight of terpene-phenolic resin and 40 parts by weight of an isocyanate hardening agent having three functional

groups (See Examples 1 and 2). The PSA composition may be prepared as a coating liquid and applied to a support sheet and dried to produce a PSA sheet (Column 7, lines 36-45). The thickness of the coated PSA layer may be 30 microns after drying (See Example 1). Example 1 states that a mixture of n-butyl methacrylate and the polymerization initiator was added to the natural rubber, which was already kneaded by a pressure kneader, and then latex polymerization reaction was performed at 80°C.

Sashihara et al. do not specifically state that the process of making their pressure sensitive adhesive does not use a solvent.

However, Southwick et al. teach processes for making adhesives by shearing a mixture of a photoinitiator and a polymer formulation so that an effectively cured adhesive film is produced with a thickness of up to an inch or more and further teach that the use of non-aqueous solvents is undesirable because of environmental hazards and the cost of non-aqueous solvent removal (Column 1, lines 39-49).

Accordingly, it would have been obvious to one having ordinary skill in the art to make the pressure sensitive adhesive composition taught by Sashihara et al. without the use of solvents given that Southwick et al. specifically teach that the use of non-aqueous solvents is undesirable because of environmental hazards and the cost of non-aqueous solvent removal. With regards to the limitation that the natural rubber has a Mooney viscosity of 20 to 100, i.e., claim 3, the Examiner takes the position that the rubber disclosed by Sashihara et al. inherently meets such a limitation given that the chemical composition and structure of the rubber disclosed by Sashihara et al. and that of the claimed invention are identical.

4. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Creegan et al. (US 3,914,484) in view of Southwick et al. (US 5,776,998).

Creegan et al. disclose a pressure sensitive adhesive (PSA) composition and labels employing such a composition (Column 1, lines 5-10). The PSA comprises natural rubber and a tacky resin and a polyisocyanate, preferably a diisocyanate (Column 2, lines 10-20). The tacky resin may be a rosin ester or a terpene resin (Column 4, lines 11-50). The amount of tacky resin may range from 30 to 70% by weight and the ratio by weight of the tacky resin to elastomeric base may range form 1:2 to 2:1 (Column 4, lines 59-67). Example 1 shows that the composition may comprise 8 parts by eight of diisocyanante relative to 100 parts of the rubber (i.e., 6 lbs. of diisocyanate relative to 70 lbs. of rubber) and that the PSA composition is coated on a paper web.

Creegan et al. do not specifically state that the process of making their pressure sensitive adhesive does not use a solvent.

However, Southwick et al. teach processes for making adhesives by shearing a mixture of a photoinitiator and a polymer formulation so that an effectively cured adhesive film is produced with a thickness of up to an inch or more and further teach that the use of non-aqueous solvents is undesirable because of environmental hazards and the cost of non-aqueous solvent removal (Column 1, lines 39-49).

Accordingly, it would have been obvious to one having ordinary skill in the art to make the pressure sensitive adhesive composition taught by Creegan et al. without the use of solvents given that Southwick et al. specifically teach that the use of non-

aqueous solvents is undesirable because of environmental hazards and the cost of non-aqueous solvent removal. With regards to the limitation that the natural rubber has a Mooney viscosity of 20 to 100, i.e., claim 3, the Examiner takes the position that the rubber disclosed by Creegan et al. inherently meets such a limitation given that the chemical composition and structure of the rubber disclosed by Creegan et al. and that of the claimed invention are identical.

5. Claims 10-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogawa (JP 11-80690) in view of Southwick et al. (US 5,776,998) and Applicants own admission.

Ogawa and Southwick et al., as discussed above, do not specifically teach that the PSA composition is applied to a substrate via calendaring or extrusion coating.

However, the Applicants, on Page 1 of the Specification, specifically state that it is known to apply a PSA composition on a substrate via a calender roll coater, extruduer or the like.

Hence, the Examiner takes the position that it would have been obvious to one having ordinary skill in the art to apply the PSA composition disclosed by Ogawa to a substrate via calendaring or extrusion coating given that the Applicants admit that it is known in the art to apply a PSA composition to a substrate via calendaring or extrusion coating. With regards to the limitation that the natural rubber has a Mooney viscosity of 20 to 100, i.e., claim 12, the Examiner takes the position that the rubber disclosed by Ogawa et al. inherently meets such a limitation given that the chemical composition and

structure of the rubber disclosed by Ogawa et al. and that of the claimed invention are identical.

6. Claims 10-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sashihara et al. (US 6,251,517 B1) in view of Southwick et al. (US 5,776,998) and Applicants own admission.

Sashihara et al. and Southwick et al., as discussed above, do not specifically teach that the PSA composition is applied to a substrate via calendaring or extrusion coating.

However, the Applicants, on Page 1 of the Specification, specifically state that it is known to apply a PSA composition on a substrate via a calender roll coater, extruduer or the like.

Hence, the Examiner takes the position that it would have been obvious to one having ordinary skill in the art to apply the PSA composition disclosed by Ogawa to a substrate via calendaring or extrusion coating given that the Applicants admit that it is known in the art to apply a PSA composition to a substrate via calendaring or extrusion coating. With regards to the limitation that the natural rubber has a Mooney viscosity of 20 to 100, i.e., claim 12, the Examiner takes the position that the rubber disclosed by Sashihara et al. inherently meets such a limitation given that the chemical composition and structure of the rubber disclosed by Sashihara et al. and that of the claimed invention are identical.

7. Claims 10-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Creegan et al. (US 3,9147,484) in view of Southwick et al. (US 5,776,998) and Applicants own admission.

Creegan et al. and Southwick et al., discussed above, do not specifically teach that the PSA composition is applied to a substrate via calendaring or extrusion coating.

However, the Applicants, on Page 1 of the Specification, specifically state that it is known to apply a PSA composition on a substrate via a calender roll coater, extruduer or the like.

Hence, the Examiner takes the position that it would have been obvious to one having ordinary skill in the art to apply the PSA composition disclosed by Ogawa to a substrate via calendaring or extrusion coating given that the Applicants admit that it is known in the art to apply a PSA composition to a substrate via calendaring or extrusion coating. . With regards to the limitation that the natural rubber has a Mooney viscosity of 20 to 100, i.e., claim 3, the Examiner takes the position that the rubber disclosed by Creegan et al. inherently meets such a limitation given that the chemical composition and structure of the rubber disclosed by Creegan et al. and that of the claimed invention are identical.

Response to Arguments

8. Applicant's arguments with respect to claims 1-8 and 10-18 have been considered but are moot in view of the new ground(s) of rejection.

Conclusi n

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheeba Ahmed whose telephone number is (703)305-0594. The examiner can normally be reached on Mondays and Thursdays from 8am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau can be reached on (703)308-2367. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-5408 for regular communications and (703)305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)306-5665.

Sheeba Ahmed
September 21, 2003

Paul Thibodeau
Supervisory Patent Examiner
Technology Center 1700